

Image Acquisition

Image Processing

*Image Review and
Interpretation*

CR30-ORACLE^{CR}

A "Revelation" in Computed Radiography

Image Distribution

Image Storage



Quantum
MEDICAL IMAGING

Innovations in Digital Imaging

CR30 – ORACLE^{CR} Package from Quantum Medical Imaging

The CR30-ORACLE^{CR} Package introduces the healthcare professional to expanded features and functionality first introduced with the CR30-SP+ system. Most importantly, the CR30 – ORACLE^{CR} is configured with MUSICA² GenRad Advanced Image Processing Software from Agfa HealthCare. This provides the practitioner with unsurpassed image quality; because every patient deserves the highest image quality technology can deliver, without compromise!



The CR30-ORACLE^{CR} Package is economically priced. Loaded with easy-to-use NX software features, designed to optimize workflow and make patient care your number one priority, this great package comes complete with the software and hardware you need to *Go Digital* today. The CR30-X Digitizer is a table-top CR designed for the workflow found in the practice setting. The Practitioner can perform all their daily tasks using Agfa’s NX worklist and examination windows. The worklist window allows the radiographer to enter patient data or select it from a RIS-Based worklist (optional). In the examination mode, the radiographer can acquire the image and apply image processing automatically. Gridline Suppression software is included to automatically detect and remove grid patterns caused by stationary grids and remove Moiré artifacts from monitor. The fast preview feature allows confirmation of correct positioning and exposure within seconds, even while the final image is being processed. The practitioner can review and interpret the patients’ image shown in full screen mode, while using Pan and Zoom functions. Options are provided for a 2MP or 3MP monitor if desired. The images can be sent to print, to another workstation or can be stored on the ORACLE^{CR}. The system includes a 500GB x2 Level 1 RAID HD. This provides expanded image storage. The compact and convenient CR30-ORACLE^{CR} is easy to install, use and maintain, providing seamless integration and multiple functions.



19” BARCO Color Touchscreen Color Monitor

The CR30-ORACLE^{CR} Package Includes Software Loaded with Functionality:

NX Premium EL CR30-X Software and MUSICA² GenRad™ SOFTWARE

- On-line processing software performs multiple tasks
- Automatic Image-Processing (utilizing MUSICA² GenRad™ Software) of incoming raw data from the CR unit
- Automatic or manual window/level setting
- Manual “black-border” collimation
- Pan, Roam, Zoom, Flip/Rotate, Free Text Annotation, R/L Markers, Search Tools
- HIPPA security log and IHE workflow compatibility
- Examination Window for Image QC
- Editing Window for Advanced Image QC Functions and Options
- DICOM PRINT
- Printer ready configuration can print to Agfa’s DryStar dry printers and other DICOM enabled printers (multiple connections allowed)
- DICOM STORE/SEND
- DICOM-Store Connection Software allows network transmission in the DICOM standard communication protocol format
- DICOM Storage Commit
- Images can be transmitted via network to PACS, standalone review stations, teleradiology servers in DICOM or JPEG formats.



DICOM Grayscale Display Standard “P-Value” OUTPUT

CD/DVD EXPORT – DICOM image with viewer, and Jpeg formats

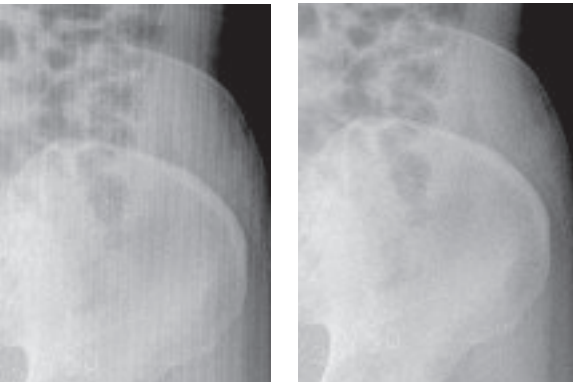
NEW! - Grid Line Suppression Software: (E4ZX8)

Automatic Detection & Removal of Grid patterns caused by stationary grids

Removal of Moiré artifact on Monitors

NX -ID SOFTWARE

QC and ID software records patient demographic and examination data in a study-oriented format onto the memory chip embedded in the CR30 cassette via radio frequency ID on one exam screen.



Gridline Suppresion Software:
Detection & removal of grid patterns
caused by stationary grids
Removal of Moire effect on monitor

Please select a reason for rejecting this image:

Image artifact(s)

Grid artifact(s)

Positioning

Motion blur

Under exposed

Over exposed

No image

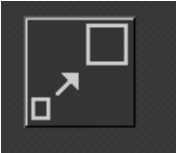
Detector artifact(s)

Other artifact(s)

Repeat-Reject Program (Optional NX QA Software)



In the examination screen and/or the editing screen you can configure the icon to go to full screen view. Clicking any key or clicking on the red cross in the right upper corner of the image will close the full screen view and return to normal view for that environment. The only functionality available in full screen is : zooming and roaming.



The complete screen will be filled with the image. The red “x” in the upper right hand corner returns the user to the Examination or Editing Window:



New Software Features

- NEW! Supports DICOM LOSSY & LOSSLESS JPEG Image Compression formats
- NEW! Increased Image Storage – up to 12,000 Images
- NEW! NX 2008 Software Included
- NEW! Auto-select next exposure after ID
- NEW! Improved Work-list Search Tool
- NEW! “FULL SCREEN MODE”
- NEW! “COMMENT” Field
- NEW! Forced Operator ID and/or Patient Data Entry (Configurable Option)
- NEW! Possible to connect to Multiple RIS (Requires NX RIS Software)
- NEW! Report Format for Repeat-Reject Analysis (Requires NX QA Software)

Add an Option, Brighten your Digital Future

- NEW! NX “Square Marker” SOFTWARE – **INCLUDED ON ORACLE – Q-PLUS**
- NEW! NX “Black Border” Software – **INCLUDED ON ORACLE – Q-PLUS**

NX PRECISION TOOLS SOFTWARE – **INCLUDED ON ORACLE – Q-PLUS**

- Annotation (advanced/programmable) Tools
- Ortho Measurement Tools, including Cobb Angle and Leg Length
- Digital Imaging Measurement Tools
- MUSICA2 Image Processing Control panel

NX RIS Connectivity Software – **INCLUDED ON ORACLE – Q-PLUS**

Link To DICOM RIS-HIS, DICOM Queary And Procedure Code Mapping

NX Integrated Workflow Software Package

Emergency, MPPS, And Viewing Priors

NX Quality Assurance Software

Dose Consistency Reporting And Repeat Reject Analysis

Mobile Kit – Appropriate For Mobile Use

(Vans, Military, Cruise Ships, etc.)

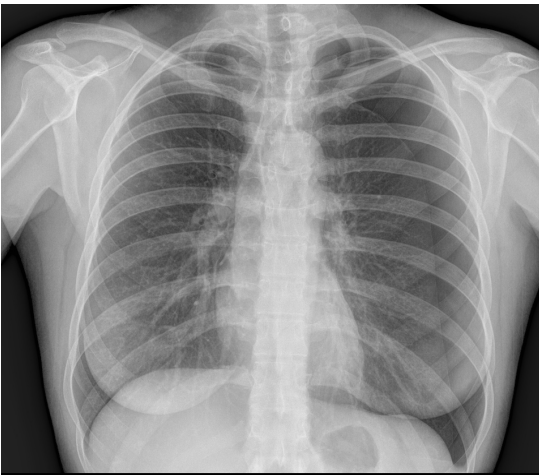
Scoliosis And Long Leg Imaging Options

CR30 Cart

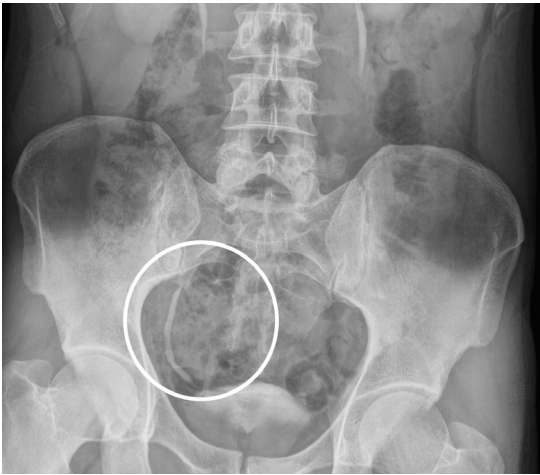
A REVELATION IN DIGITAL IMAGING

Advanced Image Processing (Optimizes Image Quality and Workflow) UNSURPASSED IMAGE QUALITY

MUSICA²™, automatically optimizes bone and soft tissue visualization with outstanding sharpness and contrast in the finest details to minimize the need for post-processing and to increase workflow efficiency



MUSICA²™ Image



MUSICA²™ Image

Agfa MUSICA²

Agfa HealthCare’s unique and patented Multi-scale image Contrast Amplification algorithm, “MUSICA”, automatically processes the radiographic image at multiple frequency ranges (detail sizes) and optimizes the contrast within each of these ranges.

MUSICA² is second generation MUSICA which intelligently renders exceptional bone and soft tissue detail simultaneously. MUSICA² analyzes the image data before applying optimal contrast and density to all details within the image.

This results in maximum radiographic detail throughout the images, greatly reducing the need for manual activities such as window and level. The improved image quality, productivity and workflow results in a process that is more efficient from start to finish.

Higher Image Quality

Image optimized to the response of human visual system, results in higher image quality, autonomy and robustness. Enhance bone and soft tissue detail, displayed in a single image, eliminating contrast or density compromise

Increased Workflow Capability

Processes the image automatically, virtually eliminating the need for routine window and leveling, allowing the technologist to stay close to the patient

Improved Care and Throughput

Greater image detail and quality helps radiologists to make diagnoses more quality and with a higher level of confidence, ultimately providing an efficient patient care experience

Specifications

CR30-ORACLE^{CR} General Technical Specifications

Digitizer Type

- CR 30-X Single Plate Reader
- Throughput; up to 76 plates/hour

LCD Display

- Machine status and error conditions

Grayscale Resolution

- Data acquisition: 20 bits/pixel
- Output to Processor: 16 bits/pixel

Reader Dimensions and Weight

- (W x D x H): 693 x 701 x 464mm (27.2 x 27.6 x 18.2 in)
- Depth including input tray: 769 mm (30.3 in)
- Weight: approx. 98kg (216.05 lbs)

Power

- 120V/60Hz (USA)
- Standby 120 W, max. 250 W, 15A fuse

Miscellaneous

- 19" High Quality Touchscreen Color Monitor
- CR NX Server: HP 500GB X 2 HD Level 1 Raid PC Workstation, Keyboard, Mouse

Environmental Conditions

- Temperature: 15° to 30° C (59 to 86° F)
- Humidity: 15 to 75% RH
- Magnetic fields: max. 3.8 µt in conformance with EN 61000-4-8: level 2
- Rate of change of temperature: 0.5°C/minute (0.9°F)

Environmental Effects

- Noise Level. max. 65 dB (A)
- Heat dissipation: standby 120W, max. 250 W

Approvals

- UL, cUL, CE

Transport Details

- Temperature: -25 to +55° C (-4 to 131° F) , -25° C for max. 96 hrs
- Humidity: 5 to 95% RH

Cassette Sizes: CR MD4.0T General Cassettes

Cassette Sizes	Catalog #	Spatial Resolution	Pixel Matrix Size
34 x 43 cm (14 x 17 in)	EVG9S	10 pixels/mm	3480x4248
24 x 30 cm	EVHAW	10 pixels/mm	2328 x 2928
18 x 24 cm (option)	EVHBY	10 pixels/mm	1728 x 2328
15 x 30 cm (option)	EVHC1	10 pixels/mm	1440 x 2928
35 x 43 cm Stitching (Option)	E2LTT	10 pixels/mm	3480 x 4248

The Quantum CR30-ORACLE^{CR} Q-1 Package Includes:

- CR30-X Single Plate Reader
- High Resolution Scanning at 10 pixels/mm
- CR NX Server: HP 500GB x2 HD Level 1 RAID PC Workstation, Keyboard, Mouse
- Intel Core Duo E8400 Processor
- Microsoft Windows XP Pro SP3 OS
- 19" BARCO Color Touch Screen High Quality Monitor with Optimizing Software
- CR NX Premium EL Software
- Patented MUSICA2 GenRad Image Processing Software
- CR NX Gridline Suppression Software
- CR NX ID and Examination Software
- DICOM Store/Send/Storage Commit and DICOM Print
- DICOM Grayscale display standard "P-Value" Output
- DICOM CD/DVD Export – DICOM Image with a viewer & JPEG formats
- 2 each 35x43 Cassettes with MD4.0T Imaging Plates
- 2 each 24x30 Cassettes with MD4.0T Imaging Plates



Quantum
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Innovations in Digital Imaging

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